

REMARKS

Claims 1-20 are pending in this application. By this Amendment, claims 7 and 9 are amended and claims 10-20 are added.

In the Office Action, claims 1-3 and 7-9 were rejected under 35 U.S.C. §102(b) over DE 100 57 673 (as translated in U.S. 6,536,351). The rejection is respectfully traversed.

Claim 1 includes the feature of an ejector charge disposed at the rear of the hollow space to eject the fragments from the projectile casing, when activated, during the flight of the projectile, the ejector charge causing the projectile casing to rupture at most at an opening in the front of the projectile casing through which the fragments are ejected. In contrast, DE 100 57 673 discloses an explosive charge 5 that ruptures the casing at many points. By rupturing the projectile case at most at an opening in the front of the projectile casing, a directed (or aimed) ejection of a large number of fragments from inside the projectile is produced. This produces a more effective concentration of fragments toward the intended target.

As discussed in the previous response, and admitted by the Office Action in the Response to Arguments section, DE '673 discloses an explosive charge that ruptures the casing at many points. Such rupturing leads to a less directed ejection than the projectile claimed in claim 1.

In light of the above, it is respectfully submitted that DE 100 57 673 does not disclose each and every feature of claims 1-3 and 7-9 and, therefore, rejection under 35 U.S.C. §102(b) is inappropriate. As a result, it is respectfully requested that the rejection be withdrawn.

In the Office Action, claims 4-6 were rejected under 35 U.S.C. §103(a) over DE 100 57 673 in view of U.S. Patent No. 4,970,960 to Feldmann. The rejection is respectfully traversed.

Because Feldmann does not remedy the deficiencies of DE 100 57 673 discussed above, it is respectfully submitted that the combination of DE 100 57 673 and Feldmann does not suggest the features of claims 4-6 and, therefore, rejection under 35 U.S.C. §103(a) is inappropriate. As a result, it is respectfully requested that the rejection be withdrawn.

New claims 11-20 include the feature of the ejector charge being a pyrotechnical ejector charge that pushes the fragments out of the opening in the front of the projectile casing only. The blasting apart of the complete casing is avoided when using a pyrotechnical ejector charge, so that the projectile casing permits a directed ejection of a large number of fragments from the projectile inside. The projectile casing therefore acts similar to a weapon barrel.

DE '673, on the other hand, discloses a projectile which has fragments that fly off laterally (column 2, line 12, of US '351) as well as in a forward direction. Following the ignition of the explosive charge, the complete projectile casing is destroyed, so that only a relatively small part of the explosive charge acts upon the frontally arranged fragment plate. The number of forward propelled fragments is therefore low because of the use of a fragment plate.

In contrast, the casing of the invention is not destroyed, but the fragments are pushed out of the opening in the front of the casing by means of the pyrotechnical charge. A large portion of the space used in the case of DE '673 for the explosive charge is used in the invention for additional fragments that can be ejected in the forward direction.

In view of the forgoing, applicants respectfully submit that the application is in condition for allowance.

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Respectfully submitted,

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